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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/809,262	03/16/2001	Toru Tsukada	Q63051	6379

7590 10/02/2002

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EXAMINER

KIM, CHONG HWA

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 10/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/809,262

Applicant(s)

TSUKADA ET AL.

Examiner

Chong H. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Aug 23, 2002 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 17, 18, 20-22, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Jelinek, U.S. Patent 4,03,167.

Jelinek shows, in Figs. 1-3, a feed screw device comprising;

a screw shaft 5;

a nut member 6 threadably engaging an outer periphery of the screw shaft 5;

a lubricant supplying device 1 (since the seal 1 aids in distributing and keeping the lubricant within the nut 6) having an insertion hole (where the projection of element 10 is

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inserted) formed in an outer periphery side thereof, the lubricant supply device 1 coming in contact with the outer peripheral surface of the screw shaft 6;

a retaining ring 10 for retaining the lubricant supply device 1, the retaining ring extends radially beyond the lubricant supply device;

a projection (of the ring 10) formed on the retaining ring 10 and disposed so as to be received in the insertion hole;

in which the nut member is provided with a recess portion 15, wherein the retaining ring retains the lubricant supply device within the recess portion;

in which the lubricant supply device comprises a plurality of lip parts 16, 17 projecting toward the screw shaft and which come in sliding contact with the outer peripheral surface of the screw shaft;

wherein the retaining ring is fixedly secured to the nut member, and the projection formed on the retaining ring prevents the lubricant supply device from rotating with the screw shaft;

wherein a spiral projection 14 is formed on an inner peripheral surface of the lubricant supply device, the spiral projection fitting into a thread groove of the screw shaft; and

wherein the retaining ring is fastened to a circumferential end face of the nut member.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jelinek in view of Spontelli, U.S. Patent 2,818,745.

Jelinek shows, as discussed above in the rejection of claim 17, the feed screw device comprising the lubricant supply device, but fails to show a cut part in the circumferential direction in the lubricant supply device.

Spontelli shows, in Figs. 2-5, the feed screw device comprising a wiper assembly 17 comprising a cut part (as shown in Fig. 5) in the circumferential direction.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the lubricant supply device of Jelinek with the teaching of wiper assembly having a cut part as taught by Spontelli in order to provide a more engaging device so that the supply of the lubricant and preventing of the dust can be realized to increase the life expectancy of the feed screw device.

6. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jelinek in view of Masutani et al., U.S. Patent 5,401,574.

Jelinek shows, as discussed above in the rejection of claim 17, the feed screw device comprising the lubricant supply device made of rubber but fails to show the lubricant supply device comprising a material including a lubricant.

Masutani et al. discloses in the abstract a lubricant supply device (a sliding member) comprising a synthetic resin (fluorine resin) containing a lubricant (carbon fibers) to be used in seal rings as described in column 1 lines 15-25.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the rubber seal ring of Jelinek with the lubricant supply device of Masutani et al. in order to maintain low friction between the seal ring and the screw shaft so that the life of seal can be prolonged as described in column 2 lines 2-4 of Masutani et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chong H. Kim whose telephone number is (703) 305-0922. The examiner can normally be reached on Monday - Friday; 9:00 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Bucci can be reached on (703) 308-3668. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

CHK
September 26, 2002


CHONG H. KIM
PRIMARY EXAMINER